



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,914	08/04/2003	Naoki Matsumaru	03500.017470.	4924
5514	7590	08/13/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			CHEN, SOPHIA S	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2852	

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,914

Applicant(s)

MATSUMARU, NAOKI

Examiner

Sophia S. Chen

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/4/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because the abstract should be limited to a single paragraph. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. (US Pat. No. 5,701,562) in view of Ando et al. (JP 06-301295)

Araki et al. discloses a process cartridge 5 having an image bearing member 21 and at least a development device 23 (Figure 5) and detachable from main body 1 of an

image apparatus (column 2, line 67 to column 3, line 14 and Figure 4), wherein the development device 23 has a developing sleeve 23a, flange members 23c, 33c fixed at the ends of the developing sleeve 23a or 33a (column 4, lines 35-38 and 50-55 and Figures 1 and 6) and a magnet roller 23d placed in the developing sleeve 23a (Figure 1), and the ends of the magnet roller 23d are supported concentrically with the developing sleeve 23a or 33a by the flange members 23c, 33c which are rotatably placed at the ends of the magnet roller 23d (Figures 1 and 6).

Araki et al. further discloses the flange members 23c, 33c fixed at the opposite ends to the ends of the developing sleeve 23a or 33a on which the flange members 23c, 33c are fixed (Figures 1 and 6).

Araki et al. differs from the instant claimed invention in not disclosing a liquid lubricant being provided on a contact surface between the flange members and the ends of the magnet roller.

Ando et al. discloses an image forming apparatus comprising a developing sleeve 3, a magnet roller 11, a flange member 18 which is rotatably placed at the end of the magnet roller 11 (Figure 2); and a liquid lubricant (silicone oil; paragraph [0017]) being coated on a contact surface between the flange member 18 and the end of the magnet roller 11 (abstract and paragraph [0017]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the lubricant (silicone oil) as taught by Ando et al. to the flange members and the ends of the magnet roller of Araki et al. to be able to control the concentration nonuniformity (Ando et al., paragraph [0017]).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. in view of Ando et al. as applied to claim 1 above, and further in view of Asada et al. (US Pat. No. 5,504,637)

Araki et al. in view of Ando et al., as discussed above, differs from the instant claimed invention in not disclosing the liquid lubricant being a mineral oil.

Asada et al. discloses a liquid lubricant being composed of mineral oil or silicone oil (column 5, lines 19-28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the mineral oil as taught by Asada et al. in place of the silicone oil of Araki et al. in view of Ando et al. because of the same functionality for providing lubrication.

6. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. in view of Ando et al. as applied to claim 1 above, and further in view of Yamashita et al. (US Pat. No. 6,421,519)

Araki et al. in view of Ando et al., as discussed above, differs from the instant claimed invention in not disclosing the material of the flange members and material of the magnet roller.

Yamashita et al. discloses an image forming apparatus comprising a developing sleeve 2; a magnet roller 1 being made of an isotropic sintered ferrite magnet, or an anisotropic bonded magnet mainly composed of ferromagnetic particles and a resin (column 1, lines 42-48); and flange members 3a and 3b being made of non-magnetic materials such as aluminum alloy, austenitic stainless steel, etc. (column 1, lines 30-33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the ferromagnetic particles and a resin as taught by Yamashita et al. to the magnet roller of Araki et al. in view of Ando et al. because Yamashita et al. teaches that the above materials are common for the magnet roller in the developing device.

Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the aluminum or the stainless steel material as taught by Yamashita et al. to the flange members of Araki et al. in view of Ando et al. because Yamashita et al. teaches that both aluminum and stainless steel are the common materials for the flange members for the developing sleeve.

Other Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sasaki et al. (US Pat. Pub. No. US 2001/0026701 A1) discloses an image forming apparatus comprising a developing sleeve, a magnet roller, a first flange member being rotatably placed at one end of the magnet roller, a second flange member being rotatably placed at the other end of the magnet roller via a sliding member, and a lubricant being provided to the second flange member.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (703) 308-7617. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

Art Unit: 2852

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
August 11, 2004